

**REMARKS**A. Period For Reply

A shortened statutory period for reply was set to expire three months from the mailing date of the Office Action of December 22, 2003. The shortened statutory period expired on March 22, 2004. This Amendment and Remarks is being filed on or before April 22, 2004 with a one month extension of time.

B. Status

The Office Action of December 22, 2003 was nonfinal.

C. Disposition Of Claims

Claims 1-17 and 28 are pending. Claims 18-27, withdrawn from consideration, have been canceled.

D. Application Papers

The drawings filed on January 18, 2002 were objected to by the Patent Office. In light of the amendment to the specification herein, it is respectfully submitted that the formal drawings filed on January 18, 2002 are now acceptable. (Please see applicant's discussion below as to section 2 of the Office Action).

E. Priority under 35 U.S.C. §§ 119 and 120

As to foreign priority, this case does not claim foreign priority.

As to domestic priority, this case does not claim domestic priority.

F. Attachments

Applicant has filed two PTO-1449 forms in this case, one with the filing of this case on January 18, 2002 and one

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on April 28, 2003. These PTO-1449 forms have been signed and all of the references listed on the forms have been initialed by the Patent Office. This is appreciated.

G. Basis for amendments to claims

No amendments have been made to the claims.

H. The Office Action

H.1. Section 1 of the Office Action

In section 1 of the Office Action, applicant's election of Group I, Claims 1-17 and 28 in Paper No. 5 was acknowledged.

H.2. Section 2 of the Office Action

In section 2 of the Office Action, the drawings were objected to under 37 CFR 1.84(p)(5). It was noted that reference character 76 was not found in the drawings, and applicant appreciates such being brought to his attention.

The specification has been amended to refer to reference character 76. Basis for this amendment is found in paragraph [0090] (of the publication document) when such is considered in light Figures 7A, 7B, 8A and 8B. By a process of elimination, and by comparing Figure 8B (which lacks feature 76) with Figures 7A, 7B and 8A (which have feature 76), there is only one conclusion: that feature 76 is a one way valve.

In sum, it is respectfully submitted that the drawings are now in compliance with 37 CFR 1.84(p)(5).

H.3. Section 3 of the Office Action

In section 3 of the Office Action, a quotation of 35 U.S.C. 102 was set out.

#### H.4. Sections 4-11 of the Office Action

In section 4 of the Office Action, claims 1-9 were rejected under 35 U.S.C. 102(b) as being anticipated by Belfer et al. (US 5,918,598). In sections 5-11 of the Office Action, a detailed rejection was made, comparing the claims to the Belfer et al. reference. These rejections are respectfully traversed in light of applicant's discussion in section I. of this paper below.

#### H.5. Section 12 of the Office Action

In section 12 of the Office Action, a quotation of 35 U.S.C. 103(a) was set out.

#### H.6. Sections 13-23 of the Office Action

In section 13 of the Office Action, claims 10-17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Belfer et al. (US 5,918,598) in view of Braunroth (US 4,503,851). In sections 14-23 of the Office Action, a detailed rejection was made, comparing the claims to the Belfer et al./Braunroth combination. These rejections and such a combination are respectfully traversed in light of applicant's discussion below in section J. of this paper.

#### H.7. Section 24 of the Office Action

In section 24 of the Office Action, it was stated that claim 28 is allowed over the prior art of record. This is appreciated.

#### H.8. Section 25 of the Office Action

Section 25 of the Office Action lists patents made of record and not relied upon but considered pertinent to applicant's disclosure. Further, the Office Action sets

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forth contact information with the Patent Office.

I. Applicant's discussion as to sections 3 to 11 of the Office Action

I.1. A first difference (in independent claim 1)

A first difference relates to applicant's claimed periphery, below the lower lip on the front of the chin and beyond the right and left sides of the mouth. In contrast, the Belfer et al. periphery cuts across the upper lip area of the user and the Belfer et al. lip section 102 is adhered to the upper and lower lips of the user.

I.1.a. The Belfer et al. reference

The Belfer et al. reference discloses the following:

- ♦ "...wherein the first and second edges of the mask extend along the opposite sides of the nose of the wearer, and the third edge extends across the upper lip area of the wearer." [emphasis added] Please see the Abstract.
- ♦ "...wherein the first and second edges of the mask extend along the opposite sides of the nose of the wearer, and the third edge extends across the upper lip area of the wearer." [emphasis added] Please see column 4, lines 58-60.
- ♦ "...sealing strip 102 is in the form of a mouth or lip section flap being configured in the shape of a pair of lips." Please see column 7, lines 35-37.
- ♦ "The lip section 102 has sufficient size so that it can be custom trimmed and sized to cover either the upper lip 16u only or cover the upper and lower lips 16u and 16l together. [emphasis added] Please see column 8, lines 6-11.
- ♦ "Also, double-sided adhesive tape 130 can be cut and trimmed to conform to the lip section 102. The double-sided adhesive tape 130 includes an inner adhering surface 132 for attaching to the inner wall

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surface 108; and an outer adhering surface 134 for temporarily affixing to the upper and lower lips 16u and 16l of the wearer's mouth." [emphasis added] Please see column 8, lines 11-17.

- ♦ "The addition of the lip section flap 102 to the peripheral sealing section 52 of mask housing 20 increases the length of mask 10 to accommodate the user's mouth area 18 and also insures that this increased peripheral sealing area is closely fitted to the user's facial contours 77, especially in the area of the user's upper and lower lips 16u and 16l, as depicted in FIG. 5 of the drawings." [emphasis added] Please see column 10, lines 11-17.
- ♦ "The technician then bends the lower metal strip 68 such that the bottom sidewall 58 having the metal strip 68 thereon is molded to the contours of the upper lip area 16u of the user's mouth, as shown in FIGS. 4 and 5 of the drawings." Please see column 10, lines 31-34.

I.1.b. The first claimed difference specifically

Independent claim 1 positively recites the following limitation and the attention of the Patent Office is respectfully drawn to the underlined portions:

wherein the covering includes a periphery completely surrounding the nostrils and mouth, wherein the periphery is structured to extend from a first position on the bridge of the nose above the nostrils to the right side of the nose, from said right side of the nose to a position on the front of the face beyond the right side of the mouth, from said position beyond the right side of the mouth to a position on the front of the face below the lower lip and on the front of the chin, from said position below the lower lip to a position on the front of the face beyond the left side of the mouth, from said position beyond the left side of the mouth to the left side of the nose, from said left side of the nose back to said first position on the bridge of the nose such that the nostrils and mouth are completely surrounded;

Allowance of independent claim 1 is respectfully requested on the basis of this first ground.

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I.2. A second difference (also in independent claim 1)

A second difference relates to applicant's claimed portion projecting outwardly of the mouth. In contrast, the Belfer et al. lip section 102 is adhered to the upper and lower lips of the user and does not project outwardly of the mouth.

I.2.a. The Belfer et al. reference

The Belfer et al. reference discloses the following:

- ◆ "...wherein the first and second edges of the mask extend along the opposite sides of the nose of the wearer, and the third edge extends across the upper lip area of the wearer." [emphasis added] Please see column 4, lines 58-60.
- ◆ "...sealing strip 102 is in the form of a mouth or lip section flap being configured in the shape of a pair of lips." [emphasis added] Please see column 7, lines 35-37.
- ◆ "The lip section 102 has sufficient size so that it can be custom trimmed and sized to cover either the upper lip 16u only or cover the upper and lower lips 16u and 16l together. [emphasis added] Please see column 8, lines 6-11.
- ◆ "Also, double-sided adhesive tape 130 can be cut and trimmed to conform to the lip section 102. The double-sided adhesive tape 130 includes an inner adhering surface 132 for attaching to the inner wall surface 108; and an outer adhering surface 134 for temporarily affixing to the upper and lower lips 16u and 16l of the wearer's mouth." [emphasis added] Please see column 8, lines 11-17.
- ◆ "The addition of the lip section flap 102 to the peripheral sealing section 52 of mask housing 20 increases the length of mask 10 to accommodate the user's mouth area 18 and also insures that this increased peripheral sealing area is closely fitted to the user's facial contours 77, especially in the area of the user's upper and lower lips 16u and 16l,

as depicted in FIG. 5 of the drawings." [emphasis added] Please see column 10, lines 11-17.

I.2.b. The second claimed difference specifically

Independent claim 1 positively recites the following limitation and the attention of the Patent Office is respectfully drawn to the underlined portions:

wherein the covering comprises a portion projecting outwardly of the mouth, with the portion projecting outwardly of the mouth being within the periphery and being convex relative to an exterior of the portion;

What can be a "covering" in the Belfer et al. reference?" The lip section 102. However, this lip section 102 does not project outwardly of the mouth.

What cannot be a "covering" in the Belfer et al. reference? The respiratory hose connector 150. Although it appears that element 150 of Belfer et al. is on the lip section 102 from Figures 1, 4 and 5, element 150 is in fact not. For example, please see Figures 6A and 6B.

What cannot be a "portion projecting outwardly of the mouth" in the Belfer et al. reference? The central section 22 of mask housing 20. The Belfer et al. reference takes care to describe that the third edge extends across the upper lip area of the wearer and that the lip section 102 is adhered to the upper lip. The upper lip area, as defined by the Belfer et al. reference itself, is clearly not the mouth. Please see the "emphasis added" underlined portions above in the review of the Belfer et al. reference.

In light of the above, allowance of independent claim 1 is respectfully requested on this second basis.

I.3. A third difference (also in independent claim 1)

A third difference relates to applicant's claimed covering being structured 1) to permit air into and out of



the covering and, at the same time with the same element, 2) to minimize a flow of substances into and out of the covering. In contrast, a reading on any "covering" of the Belfer et al. reference does not fit, namely because the Belfer et al. reference discloses a respirator, which would be inoperable if it minimized the flow of atomizers.

#### I.3.a. The Belfer et al. reference

The Belfer et al. reference discloses the following:

- ◆ "More particularly, the customized and reusable respiratory mask is sealed tightly to the wearer's facial contours and skin, such that the mask may receive pressurized or non-pressurized gases without leakage of the gases to the surrounding atmosphere." [emphasis added] Please see the Field of the Invention, column 1, lines 11-12.
- ◆ "In addition, the respiratory mask should have the capability of being sealed tightly to the wearer's facial contours and skin, such that the mask user receives pressurized or non-pressurized gases such as air, oxygen, anesthesia, steam-vapors, and atomized or nebulized medicines without leakage of such substances to the surrounding atmosphere or causing any decreases in gaseous pressure to the wearer." [emphasis added] Please column 2, line 63, to column 3, line 3.
- ◆ "The central section 22 also includes a pair of vent openings 40 and 42 adjacent to the anterior portal 34. The inner wall surface 32 of central section 22 includes inner surface contact sections 44, 46 and 48 for attaching to the peripheral sealing section 52. The central section 22 of mask housing 20 is formed of thermoplastic or elastomeric resin materials selected from the group consisting of ethyl vinyl acetate, methyl vinyl acetate, methyl acrylate, urethanes, an acrylic or a carboxylate compound." [emphasis added] Please see column 6, lines 43-48.

#### I.3.b. The third claimed difference specifically

Independent claim 1 positively recites the following limitation and the attention of the Patent Office is

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respectfully drawn to the underlined portions:

wherein the covering is structured to permit air  
into and out of the covering;  
wherein the covering is structured to minimize a  
flow of substances into and out of the covering;

It would appear that the Patent Office is interpreting "covering" to mean the Belfer et al. mask as a whole. However, even the "broadest interpretation" must be a "reasonable interpretation." Such an interpretation is, it is respectfully submitted, unreasonable. Why?

- ♦ Because applicant does not, in his specification or in his claims, equate the covering with the mask as a whole;
- ♦ Because applicant's usage of the term "covering" is consistent even where applicant describes Figure 9 (a respirator) on page 19, line 1 of the specification. Here it is indicated that the mask includes a covering; and
- ♦ Because applicant does not use the term "covering" in claim 28.

Even if the Patent Office's definition of "covering" is accepted, such a definition, i.e., the Belfer et al. "mask as a whole" definition, fails to read upon the two instant limitations of:

wherein the covering is structured to permit air into and out of the covering;  
wherein the covering is structured to minimize a flow of substances into and out of the covering;

Why not?

- ♦ Because the Belfer et al. "mask as a whole" is a respirator;
- ♦ Because the Belfer et al. "mask as a whole" must not minimize a flow of atomizers or nebulizers; and

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- ◆ Because the Belfer et al. "mask as a whole" would be inoperable by minimizing a flow of substances.

When "covering" is interpreted in light of the specification and claims and, at the same time, given its broadest reasonable interpretation, the term "covering" relates to a single element. And the Belfer et al. reference cannot meet both of the instantly reviewed limitations with any designated covering. Allowance of independent claim 1 is respectfully requested on the basis of this third ground.

#### I.4. A fourth difference (in dependent claim 2)

A fourth difference relates to applicant's claimed skin unfriendly adhesive and applicant below shows that Belfer et al. desires to avoid skin trauma, irritation, inflammatory reaction, or discomfort to the user's face.

##### I.4.a. The Belfer et al. reference

The Belfer et al. reference discloses the following:

- ◆ "The respiratory mask should have the capability of being sealed tightly to the wearer's face contours and skin without any skin trauma, irritation, inflammatory reaction, or discomfort to the user's face." [emphasis added] Please see column 2, lines 60-63.
- ◆ "Another object of the present invention is to provide a respiratory facial mask that has the capability of being sealed tightly to the wearer's facial contours and skin without any skin trauma, skin irritation, or inflammatory reaction to the skin surface when in operational use by the wearer. [emphasis added] Please see column 3, lines 55-60.
- ◆ "The aforementioned double-sided tapes 70 and 130 have a very tenacious adhesiveness to the user's

skin without traumatizing it." [emphasis added]  
Please see column 11, lines 34-36.

- ♦ "Another advantage of the present invention is that it provides for a respiratory facial mask that has the capability of being sealed tightly to the wearer's facial contours and skin without any skin trauma, skin irritation, or inflammatory reaction to the skin surface when in operational use by the wearer." [emphasis added] Please see column 12, lines 43-48.

I.4.b. The fourth claimed difference specifically  
Dependent claim 2 positively recites the following limitation and the attention of the Patent Office is respectfully drawn to the underlined portions:

wherein the adhesive is skin unfriendly such that, when the seal is removed from the face, the horny layer of the skin beneath the adhesive is removed with the adhesive, wherein the adhesive that is skin unfriendly extends entirely about the periphery.

In contrast to such limitation, please see the Belfer et al. disclosures noted above. Such disclosures are opposite to that positively recited in dependent claim 2. Allowance of dependent claim 2 is respectfully requested on the basis of this fourth ground (as dependent claim 2 includes the limitations of independent claim 1.)

J. Applicant's discussion as to sections 12 to 23 of the Office Action

First, each of applicant's arguments in section I. is hereby incorporated by reference into this section of the Remarks.

Second, it is respectfully submitted that there is no teaching or suggestion in the references for a combination of the Belfer et al. and Braunroth references. Why? Because the Belfer et al. reference teaches a respirator

that cannot minimize a flow of atomizers without being rendered inoperable and because Braunroth teaches a mask constructed of a relatively tightly woven cloth or of a molded paper product having efficient air filtration characteristics. Please see column 1, lines 10-12 of the Braunroth reference. The filtering effect is also called out in column 3, lines 49-54 of the Braunroth reference. Accordingly, such a combination, if made, would be inoperable. The feature rendered inoperable is a feature claimed in each of independent claims 12 and 13.

Third, even if the Belfer et al. and Braunroth references are combined, such a combination does not disclose or suggest the following limitation, found in each of independent claims 12 and 13:

- ♦ wherein the covering includes a periphery completely surrounding the nostrils and mouth, wherein the periphery is structured to extend from a first position on the bridge of the nose above the nostrils to the right side of the nose, from said right side of the nose to a position on the front of the face beyond the right side of the mouth, from said position beyond the right side of the mouth to a position on the front of the face below the lower lip and on the front of the chin, from said position below the lower lip to a position on the front of the face beyond the left side of the mouth, from said position beyond the left side of the mouth to the left side of the nose, from said left side of the nose back to said first position on the bridge of the nose such that the nostrils and mouth are completely surrounded;

As to such third point, please see the feature and attendant advantages pointed out in the specification in the paragraph bridging pages 2-3:

- ♦ Another feature of the present invention is the provision in a face mask having an adhesive seal, of the seal being placed in a position on the face where there is minimum movement when

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the wearer of the face mask talks or, more precisely, yells. The lower jaw especially moves when one yells, but the lower jaw "slips" within the skin of the face such that the skin of the face moves significantly less than the lower jaw. Of course, the skin of the underside of the lower jaw is greatly displaced, but not the skin of the face or the skin of the front of the face. Such a position on the face where there is such minimal movement of the skin is critical to the present passive face mask and such a position extends from a first position on the bridge of the nose above the nostrils to the right side of the nose, from said right side of the nose to a position on the front of the face beyond the right side of the mouth, from said position beyond the right side of the mouth to a position on the front of the face below the lower lip and on the front of the chin, from said position below the lower lip to a position on the front of the face beyond the left side of the mouth, from said position beyond the left side of the mouth to the left side of the nose, from said left side of the nose back to said first position on the bridge of the nose such that the nostrils and mouth are completely surrounded and such that the face mask is sealed where there is minimal movement of the skin of the face when the wearer yells. [emphasis added]

The above noted feature and attendant advantages noted in such disclosure in the specification are not afterthoughts.

Fourth, even if the Belfer et al. and Braunroth references are combined, such a combination does not disclose or suggest the following limitation, found in independent claim 12:

- ♦ an skin unfriendly adhesive such that when the seal is peeled off the face the horny layer of the skin is removed with the adhesive.

In sum, in light of the above noted four points, allowance of claims 10-17 over the combination of Belfer et

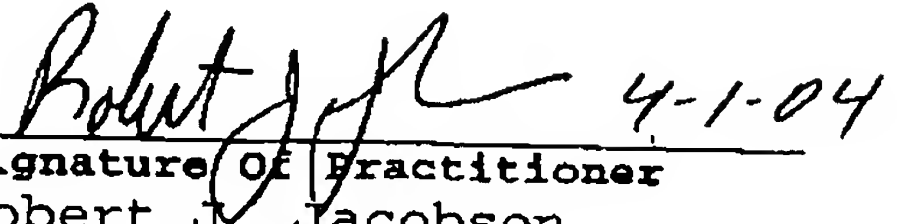
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al. and Braunroth is respectfully requested.

K. Summary

Allowance of claims 1-17 and 28 is therefore respectfully requested.

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